

ELEMENT SEVEN: NEEDS ASSESSMENT

The performance based needs scenarios are the focus of the study. They have been designed to evaluate various alternative aviation system development strategies. By comparing the resulting system performance for each investment strategy, performance trade-offs can be determined.

This Element applies the three investment scenarios, described in Element Two, and measures the performance of the state aviation system over the next five- and ten-year periods for each scenario. It is organized in the following manner:

- Application of Scenarios;
- Alternative Scenario Performance;
- Comparison of Scenarios;
- Additional Financial Requirements; and
- Summary and Conclusions.

7.1 SCENARIO A: EXISTING INVESTMENT

This scenario is designed to explore a possible condition in which the existing funding level will be assumed to remain unchanged over the next 5-, 10-, and 20-year periods. The goal is to examine the types of improvements that can be done under circumstances in which the funding for maintenance and construction of aviation facilities does not keep up with the increasing demand. In this scenario, status, condition, and performance of the system at the fixed level of funding will be evaluated.

This scenario includes many of the projects that have already been programmed by the Arizona Department of Transportation Aeronautics Division for fiscal years 2002-2006. The state and federal revenue to be invested continues the current trend for the State Aviation Fund forecasts and averages the last nine years to determine potential for Federal revenues since the continuation of the current AIR-21 cannot be assumed. Local revenues are primarily utilized as a match for state or federally-funded projects or for non-eligible items. While pavement maintenance for some of the airports is planned in this scenario, pavement management is not possible for the remaining airports due to inadequate funding. It should be noted that the airports with no pavement maintenance will eventually experience pavement failures that may force closure, adding congestion to neighboring facilities. In addition, only a few airports will be improved to keep pace with the increasing demand. Therefore, the overall performance of the system in this scenario would be expected to decline over the 20-year planning period.

Some individual projects under this scenario were selected with an emphasis on safety projects including obstruction removal to accommodate possible GPS approaches. Many of these projects were found to have relatively low costs when compared to the operational benefits that would result.

The cost of planned improvements in this scenario is summarized in Table 7-1, and a list of proposed projects for each individual airport is presented in Appendix A. For Scenario A, investment is approximately \$289.5 million over the first five years, approximately \$596.9 million over the 10-year period, and \$1.095 billion for the total 20-year planning period.

TABLE 7-1: Existing Investment Costs

	Phase I 2001-2005	Phase II 2006-2010	Phase III 2011-2020	20 Year Total
Commercial Service Airports	\$101,586,962	\$140,490,334	\$195,945,136	\$438,022,432
Other Primary Airports	167,213,826	155,889,854	280,104,065	603,207,745
Secondary Airports	14,597,172	3,663,260	8,101,210	26,361,642
Other Airports	6,146,908	7,312,503	13,449,920	26,909,331
Total for State System	\$289,544,868	\$307,355,951	\$497,600,331	\$1,094,501,150

The resulting performance of the system under investment Scenario A is shown in Table 7-2. This scenario demonstrates the consequences of an existing funding level that does not keep up with demand. The demand/capacity ratio of some airports will increase but at other airports it declines. Overall, system congestion and delay will increase, and while capacity and services at some airports will improve, service and facilities at secondary airports will be stressed.

TABLE 7-2: Scenario "A" Performance (Existing Investment)

PERFORMANCE MEASURE	SCORE			
	1999 Baseline Condition	Year 2005	Year 2010	Year 2020
<i>Facilities</i>				
1. Airports conformity to state and federal development and planning standards.	51%	50%	50%	49%
2. Airports with adequate capacity	92%	91%	90%	90%
3. Average annual aircraft delay.	2,253 hrs.	2,590 hrs ¹	2,924 hrs	3,795 hrs
4. Airports with limited potential noise impacts.	77%	77%	77%	77%
5. Airports with adequate utilities.	64%	64%	64%	64%
6. Airports with no close-in obstructions.	72%	72%	72%	72%
7. Airports with no or minimal shared airspace	54%	54%	54%	54%
<i>Service Level</i>				
8. Percent of communities served by commercial air service.	94%	94%	94%	94%
9. Percent of communities served by general aviation.	100%	100%	100%	100%
10. Percent of communities served by business aircraft.	90%	86%	86%	86%
11. Percent of hospitals served by an airport.	82%	82%	82%	82%
12. Recreational areas served by an airport.	97%	97%	97%	97%

TABLE 7-2: Scenario "A" Performance (Existing Investment) (continued)

<i>Economic</i>	1999 Baseline Condition	Year 2005	Year 2010	Year 2020
13. Cost of average aircraft annual delay (capacity).	\$39.1 mil	\$44.1 mil	\$51.2 mil	\$58.4 mil
14. Dollars of economic impact.	\$6.3 bil	\$6.4 bil	\$6.8 bil	\$7.2 bil
15a. The cost ratio of enplaned passengers.	4:1	2.3:1	1.9:1	1.8:1
15b. The cost ratio of annual aircraft operations.	15:1	12:1	12:1	12:1
16. Cost of average aircraft annual delay (airspace congestion)	\$8.2 mil	\$9.0 mil	\$9.9 mil	\$10.9 mil
Total System Cost	\$57.9 mil *	\$57.9 mil *	\$61.4 mil *	\$49.8 mil *
				(\$57.6 mil average for 20 yrs.

* Represents a one year average for comparison purposes.

7.2 SCENARIO B: EXISTING PERFORMANCE

This scenario explores a possible condition in which the existing system performance level will remain relatively unchanged. The goal is to estimate a level of funding which can help the state aviation system keep up with the increasing demand in the future. A funding level for each of the 5-, 10-, and 20-year periods needed to maintain the existing system status, condition, and performance was estimated.

In Scenario B, the system is improved to keep up with growing demand. In addition, to maintain a safe operational condition, other improvements such as routine maintenance, replacement of worn-out lighting systems, and removal of approach obstructions are included. The costs of planned improvements in this scenario are summarized in Table 7-3 with a list of designated projects and costs for individual airports included in Appendix B.

TABLE 7-3: Existing Performance Costs

	Phase I 2001-2005	Phase II 2006-2010	Phase III	20-Year Total
Commercial Service Airports	\$165,875,557	\$230,860,470	\$195,175,386	\$591,911,413
Other Primary Airports	347,211,326	258,525,127	280,389,427	886,125,880
Secondary Airports	18,093,282	8,433,814	8,675,102	35,162,198
Other Airports	7,995,613	75,785	806,000	8,877,398
Total for State System	\$539,135,778	\$497,895,196	\$485,045,915	\$1,522,076,889

For Scenario B, the total needs will be approximately \$539.1 million over the first five years, \$1.04 billion over the 10-year period, and \$1.52 billion over the 20-year planning period. The resulting performance of the system under this scenario is presented in Table 7-4.

TABLE 7-4: Scenario "B" Performance (Existing Performance)

PERFORMANCE MEASURE	SCORE			
<i>Facilities</i>	1999 Baseline Condition	Year 2005	Year 2010	Year 2020
1. Airports conformity to state and federal development and planning standards.	51%	51%	51%	51%
2. Airports with adequate capacity	92%	92%	92%	92%
3. Average annual aircraft delay.	2,253 hrs	2,044 hrs	2,001 hrs	2,095 hrs
4. Airports with limited potential noise impacts.	77%	77%	77%	77%
5. Airports with adequate utilities.	64%	64%	64%	64%
6. Airports with no close-in obstructions.	72%	78%	100%	100%
7. Airports with no or minimal shared airspace	54%	54%	54%	54%
<i>Service Level</i>				
8. Percent of communities served by commercial air service.	94%	94%	94%	94%
9. Percent of communities served by general aviation.	100%	100%	100%	100%
10. Percent of communities served by business aircraft.	90%	90%	90%	90%
11. Percent of hospitals served by an airport.	82%	82%	82%	82%
12. Recreational areas served by an airport.	97%	97%	97%	97%
<i>Economic</i>				
13. Cost of average aircraft annual delay (capacity).	\$39.1 mil	\$24.4 mil	\$20.3 mil	\$15.6 mil
14. Dollars of economic impact.	\$6.3 bil	\$8.4 bil	\$9.56 bil	\$10.7 bil
15a. The cost ratio of enplaned passengers.	5:1	4.8:1	1.9:1	
15b. The cost ratio of annual aircraft operations.	15:1	19:1	18:1	12.4:1
16. Cost of average aircraft delay (airspace congestion)	\$8.2 mil	\$7.2 mil	\$6.4 mil	\$5.2 mil
<i>Total System Cost</i>	\$57.9 mil *	\$107.8 mil *	\$99.6 mil *	\$48.6 mil *
(\$76.1 mil average for 20-years)				

* Represents a one year average for comparison purposes for 5-year, 10-year, and 20-year periods.

In Scenario B, delay is expected to decrease over 1999 levels during the interim period due to the capacity enhancement projects programmed in Phase II, but will begin increasing again toward the end of the planning period as demand increases.

7.3 SCENARIO C: INCREASED PERFORMANCE

The third scenario examines a possible condition in which all existing public-use airports would be brought up to meet minimum State airport development standards, existing airports would be expanded to meet forecast demand, and new airports would be constructed to meet access or capacity deficiencies. This would be essentially an unconstrained growth scenario and will determine the costs of expanding the existing system to meet the expected growth in future State aviation activity.

The costs associated with Scenario C are summarized in Table 7-5. Under this scenario, total investment will be about \$1.12 billion over the first five years, \$1.90 billion over the 10-year planning period, and \$2.7 billion over the 20-year planning period. Detailed projects and costs for individual airports are presented in Appendix C.

TABLE 7-5: Increased Performance Costs

	Phase I 2001-2005	Phase II 2006-2010	Phase III 2011-2020	20 Year Total
Commercial Service Airports	\$459,664,598	\$296,533,865	\$359,588,086	\$1,115,786,549
Other Primary Airports	618,849,443	445,045,547	393,032,529	1,456,927,519
Secondary Airports	25,509,389	20,793,602	20,390,745	66,693,736
Other Airports	19,239,990	18,827,307	27,461,415	65,528,712
Total for State System	\$1,123,263,420	\$781,200,321	\$800,472,775	\$2,704,936,516

The resulting performance of the system under this scenario is presented in Table 7-6. In this scenario average annual delay is reduced significantly from a system-wide cost of \$39.1 million to a level of \$12.2 million over the 20-year planning period. In addition to a significant number of capacity enhancement projects, Scenario C also includes projects necessary to bring all system airports into conformity with state airport planning and engineering guidelines.

TABLE 7-6: Scenario "C" Performance (Increased Performance)

PERFORMANCE MEASURE	SCORE			
<i>Facilities</i>	1999 Baseline Condition	Year 2005	Year 2010	Year 2020
1. Airports conformity to state and federal development and planning standards.	51%	76%	90%	95%
2. Airports with adequate capacity	92%	97%	97%	98%
3. Average annual aircraft delay.	2,253 hrs	1,985 hrs	1,226 hrs	910 hrs
4. Airports with limited potential noise impacts.	77%	84%	87%	95%
5. Airports with adequate utilities.	64%	100%	100%	100%
6. Airports with no close-in obstructions.	72%	100%	100%	100%
7. Airports with no or minimal shared airspace	54%	60%	78%	84%
<i>Service Level</i>				
8. Percent of communities served by commercial air service.	94%	97%	100%	100%
9. Percent of communities served by general aviation.	100%	100%	100%	100%
10. Percent of communities served by business aircraft.	90%	100%	100%	100%
11. Percent of hospitals served by an airport.	82%	94%	95%	100%
12. Recreational areas served by an airport.	97%	97%	100%	100%
<i>Economic</i>				
13. Cost of average aircraft annual delay (capacity).	\$39.1 mil	\$22.2 mil	\$19.4 mil	\$12.2 mil
14. Dollars of economic impact.	\$6.3 bil	\$8.22 bil	\$9.74 bil	\$12.9 bil
15a. The cost ratio of enplaned passengers.	4:1	6.3:1	2.7:1	1.5:1
15b. The cost ratio of annual aircraft operations.	15:1	24.6:1	20.9:1	14.9:1
16. Cost of average aircraft delay (airspace congestion)	\$8.2 mil	\$4.6 mil	\$4.1 mil	\$2.6 mil
Total System Cost	\$57.9 mil *	\$224.6 mil *	\$156.2 mil *	\$80.0 mil *
(\$135.2 mil average for 20-yrs)				

* Represents a one year average for comparison purposes for 5-year, 10-year, and 20-year periods.

7.4 ANALYSIS OF SYSTEM PERFORMANCE

The purpose of this section is to compare the resulting system performance from the application of each of the three alternative investment scenarios. This allows a recognition of the trade-offs involved from one scenario to another. A 10-year cost comparison for each scenario is shown in Table 7-7. As illustrated in this exhibit, costs range from a low of \$597 million for Scenario A, to \$1.9 billion for Scenario C. This represents a difference of approximately \$1.3 billion.

TABLE 7-7: Scenarios “A”, “B”, and “C” Ten-Year Investment Costs

	“A” Existing Investment	“B” Existing Performance	“C” Increased Performance
Commercial Service Airports	\$242,077,296	\$396,736,027	\$756,198,463
Other Primary Airports	323,103,680	605,736,453	1,063,894,990
Secondary Airports	18,260,432	26,487,096	46,302,991
Other Airports	13,459,411	8,071,398	38,067,297
Total for State System	\$596,900,819	\$1,037,030,974	\$1,904,463,741

To link system capital costs to system performance and to differentiate between scenarios, a comparison performance evaluation matrix of year 2020 system performance for each scenario is presented in Table 7-8.

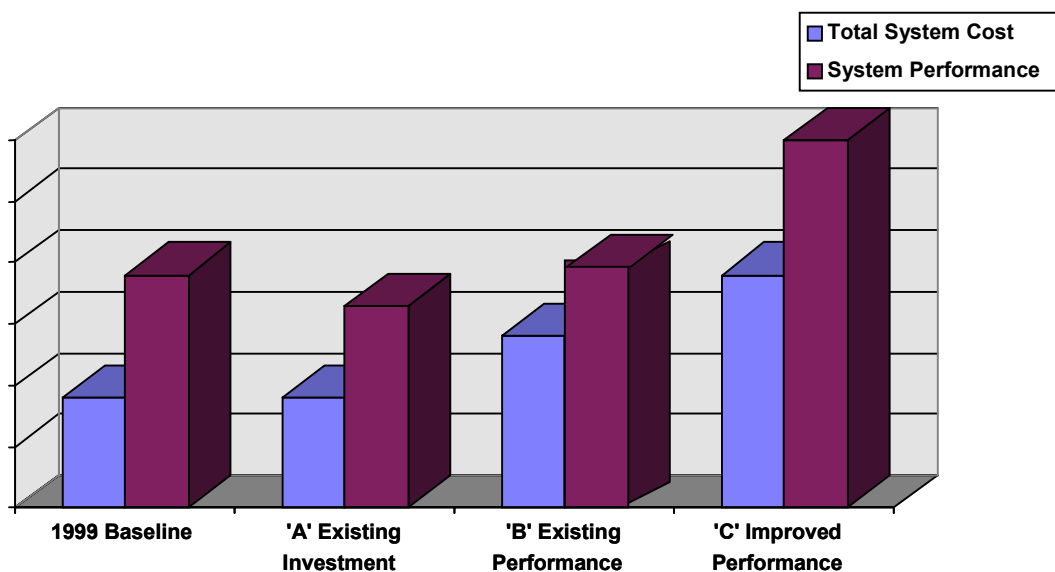
As can be seen in this exhibit, most performance measures improve, as expected, with each subsequent increase in investment levels. Scenario C shows a significant decrease in aircraft delay, with a corresponding increase in dollars of economic impact over Scenarios A and B. The differences between Scenarios B and C are reflected mostly in improvements to conformity to airport planning standards, and utility and infrastructure improvements to Secondary and Other Airports.

TABLE 7-8: Year 2020 Scenario Performance Comparisons

PERFORMANCE MEASURE	SCORE			
	1999 Baseline Condition	Scenario A Existing Investment	Scenario B Existing Performance	Scenario C Increased Performance
<i>Facilities</i>				
1. Airports conformity to state and federal development and planning standards.	51%	49%	51%	95%
2. Airports with adequate capacity	92%	90%	97%	98%
3. Average annual aircraft delay.	2,263 hrs	3,795 hrs	2,095 hrs	910 hrs
4. Airports with limited potential noise impacts.	77%	77%	77%	95%
5. Airports with adequate utilities.	64%	64%	64%	100%
6. Airports with no close-in obstructions.	72%	72%	100%	100%
7. Airports with no or minimal shared airspace	54%	54%	54%	84%
<i>Service Level</i>				
8. Percent of communities served by commercial air service.	94%	94%	94%	100%
9. Percent of communities served by general aviation.	100%	100%	100%	100%
10. Percent of communities served by business aircraft.	90%	86%	90%	100%
11. Percent of hospitals served by an airport.	82%	82%	82%	95%
12. Recreational areas served by an airport.	97%	97%	97%	100%
<i>Economic</i>				
13. Cost of average aircraft annual delay (capacity).	\$39.1 mil	\$58.4 mil	\$15.6 mil	\$12.2 mil
14. Dollars of economic impact.	\$6.3 bil	\$7.26 bil	\$10.7 bil	\$12.9 bil
15a. The cost ratio of enplaned passengers.	4:1	1.8:1	1.6:1	1.5:1
15b. The cost ratio of annual aircraft operations.	15:1	1.2:1	12.4:1	14.9:1
16. Cost of average aircraft delay (airspace congestion)	\$8.2 mil	\$10.9 mil	\$5.2 mil	\$2.6 mil
<i>Total System Cost</i>	\$289.5 mil \$57.9 mil *	\$1.094 bil \$54.7 mil *	\$1.522 bil \$76.1 mil *	\$2.705 bil \$135.25 mil *

* Represents a one year average for comparison purposes pro rated over the 20-year period.

YEAR 2020 INVESTMENT AND PERFORMANCE



As demonstrated in the above graphic for the 20-year performance window, an increase in investment results in increased system performance. Under the “existing investment” Scenario A, performance of the systems will deteriorate over the planning period. Under the existing performance scenario, Scenario B, existing baseline performance will remain at its current levels at a 20-year cost of about \$1.03 billion for the system. Under the improved performance, Scenario C, approximately \$2.7 billion would be required over the 20-year planning period to bring the system up to nearly 100% performance. Under this scenario, nearly all airports would be brought up to minimum DOT/FAA design standards and the “service level” performance categories would all reach 100% compliance with the established performance measures used in this study.

7.5 ADDITIONAL INVESTMENT NEEDS

The proceeding section addressed the resulting system performance from the application of the three investment scenarios. In this section, the needs are expressed as additional financial requirements over and above the projected level of funding from the current revenue sources. Additional financial needs have been desegregated by federal, state, local, and private sector based on their respective role in development and maintenance of public use airports. The distribution of financial responsibilities in ADOT's 2002-2006 Airport Improvement Program has been used as a guide. However, depending on the continuation of the Federal AIR-21 program, and assuming local revenue sources become more limited, the state may need to assume a greater role in the financing of needed improvements.

It has been assumed that the investment needs of American Indian airports will continue to be met by the Federal government. The privately-owned public use facilities will be funded by the private sector. In other words, the revenues from the private sector sponsors will equal the cost of improvements at privately-owned airports under each scenario. Thus, additional financial requirements of privately-owned public use facilities will be zero for all scenarios.

Based on these assumptions, additional financial needs under each scenario have been estimated. These needs are presented in Tables 7-9 through 7-11.

Scenario A was designed to explore a possible condition in which the existing funding level was assumed to remain unchanged over the 5-, 10-, and 20-year periods. The goal was to examine the types of improvements that could be done in the circumstances in which the funding for maintenance and construction of aviation facilities does not keep up with the increasing demand. As can be seen in Table 7-9, it is assumed that federal and local funding levels will keep pace with past levels of funding, and in the short term, maybe exceed those levels with the passage of AIR-21 legislation. For the long term, however, these higher levels of funding are assumed to revert back to lower levels for FY 2006 and beyond.

As shown in the exhibit, the remaining federal and state costs related to improvements programmed as a part of this Scenario are close, but are expected to exceed revenue expectations by approximately \$3.2 million through 2005. Based on projected costs, the need for additional local revenues is estimated to be \$1.98 million in the second phase. Federal funds will be needed to support the state and local funding deficits. The appearance of combined revenue surpluses in Phase III is due to the difficulty of projecting the need and extent of future projects with as much detail in the 0-5 and 5-10-year time frames. Many additional projects and needs will be identified as these funding periods become closer.

TABLE 7-9: Additional Financial Requirements for Scenario "A" (Existing Investment)
(Thousands of Constant 2000 Dollars)

	Phase I 2001-2005			Phase II 2006-2010			Phase III 2011-2020		
	Costs	Revenues	Surplus/ (Deficit)	Costs	Revenues	Surplus/ (Deficit)	Costs	Revenues	Surplus/ (Deficit)
Federal	\$229,253	\$227,010	(\$2,243)	\$221,833	\$225,000	\$3,167	\$330,650	\$536,000	\$205,350
State	46,284	45,290	(994)	65,100	64,200	(900)	138,450	134,000	(4,450)
Local	13,841	16,049	2,208	13,237	10,210	(3,027)	18,400	21,300	2,900
Private	167	167	0	7,186	5,967	(1,219)	10,100	10,100	0
Total	\$289,545	\$288,516	(\$1,029)	\$307,356	\$305,377	(\$1,979)	\$497,600	\$701,400	\$203,800

* Numbers in parentheses show that estimated costs exceed revenues.

Phase I revenues represent the estimated remaining levels of funding available for fiscal years 2002-2005.

For Scenario B, total additional financial needs will amount to approximately \$120.6 million in the first phase, \$149.5 million in the second phase, with a surplus at least shown in the 10-20 year period. The additional investment in the first phase is necessary to maintain the existing system performance in the wake of rapidly growing travel demand. Again, the reason for the decrease in costs and the projected surplus in Phase III is only due to the difficulty of projecting the need and extent of future projects with as much detail in the 20-year time frame as in the short- and middle-term 10-year periods. Historically, the state's five-year Airport Development Program recommended list of projects has exceeded revenues available.

TABLE 7-10: Additional Financial Requirements for Scenario "B" (Existing Performance)
(Thousands of Constant 2000 Dollars)

	Phase I 2001-2005			Phase II 2006-2010			Phase III 2011-2020		
	Costs	Revenues	Surplus/ (Deficit)	Costs	Revenues	Surplus/ (Deficit)	Costs	Revenues	Surplus/ (Deficit)
Federal	\$468,166	\$324,300	(\$143,866)	\$408,391	\$268,000	(\$140,391)	\$387,852	\$536,000	\$148,148
State	36,348	64,700	28,352	37,900	64,200	26,300	83,092	134,000	50,908
Local	28,282	23,166	(5,116)	37,900	2,473	(35,427)	14,102	21,300	1,198
Private	6,340	6,340	0	13,704	13,704	0	0	0	0
Total	\$539,136	\$412,166	(\$120,630)	\$497,895	\$348,377	(\$149,518)	\$485,046	\$701,400	\$216,354

* Numbers in parentheses show that estimated costs exceed revenues.

In Scenario C, total additional financial needs will amount to \$699.5 million dollars in the first phase, \$432.8 million dollars in Phase II, and \$99.1 million dollars in Phase III. Again, as in Scenario B, the reason for the lower costs in the later stage of the planning program is due to the difficulty of projecting the need and extend of future projects with as much detail in the 10- and 20-year time frames as in the intermediate term 10-year phase.

TABLE 7-11: Additional Financial Requirements for Scenario "C" (Increased Performance)
(Thousands of Constant 2000 Dollars)

	Phase I 2001-2005			Phase II 2006-2010			Phase III 2011-2020		
	Costs	Revenues	Surplus/ (Deficit)	Costs	Revenues	Surplus/ (Deficit)	Costs	Revenues	Surplus/ (Deficit)
Federal	\$993,485	\$324,700	(\$668,785)	\$615,213	\$268,000	(\$347,213)	\$630,391	\$536,000	(\$94,391)
State	83,431	64,700	(18,731)	124,013	64,200	(59,813)	139,277	134,000	(5,277)
Local	34,823	22,850	(11,973)	36,000	10,210	(25,790)	20,705	21,300	595
Private	11,524	11,524	0	5,974	5,974	0	10,100	10,100	0
Total	\$1,123,263	\$423,774	(\$699,489)	\$781,200	\$348,384	(\$432,816)	\$800,473	\$701,400	(\$99,073)

* Numbers in parentheses show that estimated costs exceed revenues.

7.6 SUMMARY AND CONCLUSIONS

The performance based needs model has been used to develop various funding scenarios. The model provides information that directly relates capital investment in the system with resulting performance. Three scenarios were addressed. The focus of the funding scenarios was on the first 5-10-year planning phase, with a more broad range look at the long-term 20-year phase.

Scenario A describes how the system will perform if the existing level of funding is maintained. This reflects projects included in ADOT's 2002-2006 Airport Development Program. Pavement at some of the airports is preserved and a few improvements are made in the system. However, the system cannot keep pace with growing demand at this level of investment. Performance at most of the system airports will deteriorate due to inadequate funding. Overall, system congestion and delay will increase and the economic impact of aviation to the state will decline.

Scenario B explores the minimum cost strategies and investment level to maintain the current level of system performance over the 20-year planning period. The system is improved only to maintain existing performance levels as demand on the system increases. The majority of investment is directed to Commercial Service and other Primary system airports.

In Scenario C, all airports in the system are improved to meet the FAA/ADOT's minimum planning and design guidelines. Where the necessary improvements are physically, environmentally, or economically infeasible, the airports will be improved to the best possible condition. Also, the system will be improved to keep pace with growing demand, and service levels will be improved to raise performance scores. The cost of average aircraft delay decreases to \$12.2 million. The total 20-year cost of all the improvements under this scenario is about \$2.7 billion.

Projected levels of funding from current revenue sources are assumed to be maintained over the 5-year planning period and decline and stabilize after that. Communities that support primary air carrier airports may pursue the option of implementing passenger facility charges (PFCs) to supplement declining federal and local revenues. Local communities that do not have the option of implementing PFCs will most likely turn to the state for additional assistance.

An estimated \$1.04 billion 10-year investment is needed to maintain the existing system performance, and an estimated \$1.9 billion is necessary for an improved system that will bring all airports up to state standards, again over 10 years. As federal funding may decrease, state and local governments will be challenged to financially support continued system development.

The issue of the possible decline of federal support for general aviation and small commercial service airports continues to be one of the single most important challenges facing aviation in the state today. All indications based on past history and recent trends are that federal assistance may not remain at its AIR-21 levels for the long term. As a result of this potential decline in federal assistance, these funds, along with the total funding available from state, local and private sources, will not adequately maintain the aviation system. The probable result of any decline in available funds is that aid to smaller airports will not be provided in the future. This will result in a significant deterioration in overall system performance, particularly in regard to

facility infrastructure, service levels, safety, accessibility to and from rural areas of the state, economic opportunities and benefits, and delivery of social and medical services.

To respond to the expected shortfalls in federal and state support, local airport sponsors need to be more creative in leveraging existing AIP funding with other federal, state and local development programs. Local funding requirements can also be supplemented by imposing more user fees for services provided. Because the benefits of an airport often spread beyond city/sponsor boundaries, multi-jurisdictional authorities could be created to share the cost of operating and maintaining a facility. Where practical, aviation facilities can be combined to avoid duplication of services.

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